

Omnichannel retailing, from the focus on consumer behavior through organizational and retailer impact: A systematic review from a marketing perspective

L'houssaine Mounaim, (PhD, Professor)

*Faculty of Law, Economic and Social Sciences, Marrakech
Cadi Ayyad University of Marrakech, Morocco*

Zakaria Knidiri, (PhD in Management Sciences)

*Faculty of Law, Economic and Social Sciences, Marrakech
Cadi Ayyad University of Marrakech, Morocco*

Hind Tamer, (PhD Student in Management Sciences)

*Faculty of Law, Economic and Social Sciences, Marrakech
Cadi Ayyad University of Marrakech, Morocco*

Correspondence address:	Cadi Ayyad University Faculty of Legal, Economic and Social Sciences, Marrakech, Morocco zakaria.knidiri@uca.ac.ma
Disclosure statement:	The authors are not aware of any funding, that might be perceived as affecting the objectivity of this study.
Conflicts of interest:	The authors report no conflicts of interest.
Cite this article	Mounaim, L., Knidiri, Z., & Tamer, H. (2021). Omnichannel retailing, from the focus on consumer behavior through organizational and retailer impact: A systematic review from a marketing perspective. International Journal of Accounting, Finance, Auditing, Management and Economics, 2(4), 302-322. https://doi.org/10.5281/zenodo.5133323
License	This is an open access article under the CC BY-NC-ND license

DOI: 10.5281/zenodo.5133323

Received: June 25, 2021

Published online: July 25, 2021

Omnichannel retailing, from the focus on consumer behavior through organizational and retailer impact: A systematic review from a marketing perspective

Abstract:

In an increasingly digital world characterized by the rise of web 5.0, mobile internet, and broadband, companies find themselves in a process of profound adaptation. The different modes of interaction with customers also undergo systematic transformations due to the revolution that technology, especially the Internet is imposing on the market. So, this work aims to understand the complexity of Omnichannel retailing using bibliometrics and a systematic review of methodological strategies. This study also presents an investigation of the aforementioned theme considering the marketing lens as the main approach. The research was conducted in seven databases to list the main articles on the topic. The search terms were "Omnichannel" and its main variant "omnichannel". The databases used were: Google Scholar, Web Science, Scopus, Ebsco Host. The main results indicate that marketing researchers are addressing omnichannel from the consumer's perspective (consumer experiences and the importance of the customer journey in omnichannel retailing), the business strategies adopted by companies to act in this retail format (investments in technology to integrate performance across different channels), and the interaction of marketing with other organizational domains (integration of the marketing domain with other domains to act in this retailing context). In conclusion, we suggest the following research perspectives: a) themes for understanding the customer's journey; b) stages covered and how consumer experiences can impact new purchases; c) understanding how companies are preparing to deal with this omnichannel scenario.

Keywords: Omnichannel; Retail; Consumer behavior; Marketing; Strategy.

JEL Classification: M31

Paper type: Theoretical Research

1. Introduction:

Understanding consumer behavior is a big issue for companies, it has become a theme of greater attention in the organizational context. Based on this principle, companies are trying to understand which path consumers to take to get the best buying experience since they use several channels to get information about products until the purchase. To that end, companies offer different channels to access products, whether it is mobile applications, online stores, physical stores, etc. Companies are also looking to differentiate themselves in the market by indicating their performance strategy. Thus, they can use only one channel or several. When they choose to offer more than one channel, they act within the framework of a multi-channel strategy, which is "the set of activities related to selling goods or services to customers through more than one channel" (Zhang et al., 2010). However, this strategy does not tackle the issue of interaction and integration between channels.

Instead, when the concern becomes the integration of these channels, i.e., a way to make the consumer experience unique, the consumer will be surrounded by the same buying characteristics across channels, the approach is referred to as omnichannel. According to Verhoef, Kannan, and Inman (2015), omnichannel is the retail strategy that applies synergistic management of many channels and touch points available to the customer to optimize the customer experience and channel performance.

Therefore, it becomes necessary to better understand this retail strategy, which is one of the aims of this study. According to Benmoussa and Knidiri, (2019), studies in the retail field need to focus on understanding the issues related to customer behavior, as they become omnichannel in their behaviors and perspectives. Galipoglu et al. (2018), indicate in their findings on omnichannel that the intellectual orientation is incorporated in the field of marketing, although it still lacks a solid theoretical basis which still requires further research. To confirm this statement, the topic in question is one of the research indications in the field of marketing according to the MSI research priorities for the 2018-2020 biennium. In addition, concerning the managerial aspect, the study indicates the points on which companies must focus especially in understanding consumer behavior, and also to send information on the business strategies adopted to adopt in the omnichannel retail format.

Thus, to better understand this context, this research aims to contribute with an update on the topic, placing the main approaches that surround it through a bibliometric study complemented by a systematic review. To this end, a sample of 58 articles from four different databases was selected to analyze and understand the most relevant research on the topic. In this way, the study provides an understanding of the concept of omnichannel retailing, a visualization of the context in which studies on this topic are embedded, and the main approaches researched. The methodological aspects focus on how the articles were identified and selected. The results are summarized in a table indicating the theoretical and empirical gaps extracted from the 58 articles analyzed in this study. However, the study is limited by the fact that it addresses the topic only from the marketing perspective, as well as by the sample studied since other studies on the topic are not considered here. The number of bases studied is also a limiting factor of the study.

Finally, this study will be guided by the following plan, we will start with a conceptual and theoretical background in which we will define a number of basic marketing concepts such as single-channel, cross-channel and omnichannel. Then, we will present the methodological protocol. After that, we will present the quantitative and qualitative analysis of the results of the study according to the subject categories, (Omnichannel consumer behavior (experiences and journeys), Omnichannel retail marketing strategies, Literature reviews and future directions for omnichannel, differences between single-channel, cross-channel and omnichannel, interdisciplinary relationships between marketing and other management disciplines and finally

Security in the omnichannel context). Then, we will present the limits and perspectives of the research and finally a general conclusion.

2. Omnichannel Retail Background:

To understand omnichannel retailing, it is necessary to explain some basic marketing concepts such as marketing channels.

While the focus is on omnichannel, it is also necessary to understand that not all organizations operate under this retail strategy. According to data from the European market, physical stores with 79% and, websites with 73%, are the most used channels to generate sales, where the omnichannel sales strategy is used by only 21% of the retailers surveyed (PWC 2017). In Morocco, according to Benachour (2016), 71% of consumers prefer the physical channel to make their purchase, while only 29% of Moroccans opt for the virtual channel. For Mundim and Petroll (2018), the classification of a retailer occurs on a continuum, where at one end are retailers who operate on a single channel and, at the other end, omnichannel retailers, leaving the multichannel and cross-channel strategy as an intermediary in this continuum. When the strategy adopted refers to retailers that operate in a single channel, they are classified as purely online or purely offline and can be differentiated based on certain factors, such as, for example, for their market coverage, since in the offline strategy, the firms' reach to consumers is more limited than in the online platform (Otto and Chung, 2000).

An intermediate strategy adopted by retailers is multi-channel which provides the consumer with different channels. However, these channels do not have integration features between them. According to Verhoef, Kannan, and Inman (2015), the multichannel strategy has been driven by the growth of online channels. As a result, companies have realized that they need a presence beyond traditional channels. With this in mind, Neslin et al. (2006) assert that customer management in multichannel strategy requires concern for a series of attributes such as the channel design, implementation, coordination, and evaluation, through which companies and customers interact to increase customer value. Thus, the organizational management process becomes more complex, as the issues related to how to serve the consumer in the multichannel format involve not only the marketing sector but also the company as a whole. It is important to emphasize that in this multichannel strategy, the consumer has different possibilities of contact with the companies, but there is no interaction between these points, that is, each channel has a unique autonomy to initiate and finalize the purchase process with the customer. If the customer chooses to change the channel, he/she will not be able to recover the journey started on another channel. To make this possible, we switch to a more appropriate definition which is the cross-channel.

For Beck and Rygl (2015), cross-channel is the retail format in which the consumer has the freedom to purchase from an online store and pick up from a physical store, i.e., a partial integration of channels, as they do not have to be fully integrated for this process to take place.

While the mission of companies has already become extremely complex in the cross-channel performance platform, the strategy that requires even more attention and organizational dynamares are omnichannel retailing. For Piotrowicz and Cuthbertson (2014), the omnichannel concept is seen as an evolution of multichannel. According to Carvalho and Campomar (2014), omnichannel can be understood as ubiquitous or that which involves everything in the distribution process. In this evolutionary view, omnichannel appears as an expanded strategy, which goes beyond serving consumers on different channels. This strategy is reinforced because the boundaries between online and physical channels no longer exist. Its integrative nature aims to provide a seamless experience to the customer, regardless of the channel (Piotrowicz and Cuthbertson, 2014). In this sense, "omnichannel retailing is an environment in which customers shop in a variety of online and offline channels" (Bell, Gallino, & Moreno, 2014).

It is understood that such a reality was and is only possible because the Internet, various social media, and mobile devices have revolutionized the retail experience of customers, as they have given access to different platforms to search and purchase of a product anytime and anywhere (Hansen and Sia, 2015). Gao and Su (2016), conclude in their studies that customers in an omnichannel retail environment strategically choose channels for purchases and service. The omnichannel customer is mobile, highly connected, and adopts technology daily in their lives (Cook, 2014).

Therefore, businesses need to be aware of consumer behavior in this omnichannel environment, as understanding these behaviors allows for the best marketing strategies to be implemented.

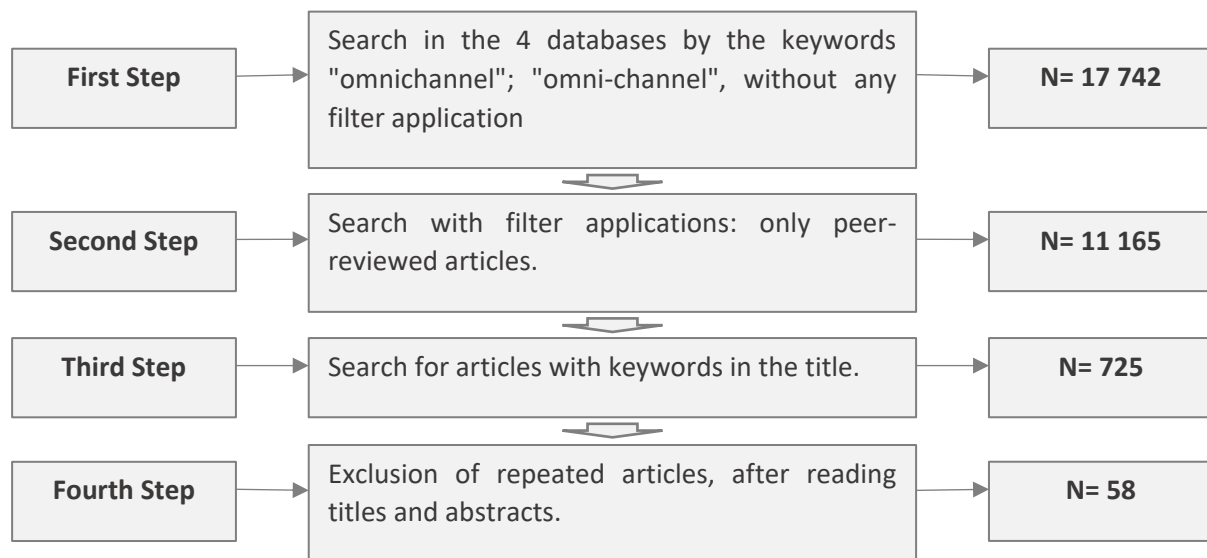
3. Methodological Protocol:

This study adopts the methodological principles of Saunders, Lewis, and Thornhill (2009), who define bibliometric studies and systematic reviews as research strategies: "bibliometrics is a quantitative and statistical technique for measuring the rates of production and dissemination of scientific knowledge" (Araújo, 2006). For Sampaio and Mancini (2007), the systematic review, on the other hand, used as a complement to bibliometrics to help understand the data by deepening their analysis, is "a form of research that uses the literature on a given topic as a source of data". According to the authors, "systematic reviews are particularly useful for integrating information from a set of separately conducted studies" (Sampaio & Mancini, 2007).

Due to the use of two different research strategies, it is necessary to use the mixed methods approach, as the data are worked through both quantitatively and qualitatively. "Mixed methods research focuses on the collection, analysis, and mixing of quantitative and qualitative data in a single study or series of studies" (Creswell & Clark, 2013). In the quantitative phase, statistical procedures based on descriptive statistics are used through the phases of data collection, selection, categorization, and reporting through tables and charts (Cunha, 1978). As for the qualitative phase, the content analysis, which treats the information about a specific scenario in three phases: a) the pre-analysis, in which the documents are selected, in this case, the articles; b) the exploration of the material, highlighting the objectives of the research, in this context, it deals with the categorization of the articles and; c) the treatment of the data and results, which connects the obtained results with the theoretical body of work, in this case dealing with the results with the omnichannel literature (Bardin, 1977).

To obtain the sample, four databases were consulted in order to identify the main articles on the topic of omnichannel retailing. For this purpose, Dyba and Dingsoyr's (2008) study selection process flowchart model was used as a basis, as shown in Figure 1, which separates the search into four stages. The databases used were Google Scholar, Web of Science, Scopus, and Ebsco Host. The search was carried out initially without applying any filters, precisely to absorb as many articles as possible and to understand at what period the theme began to be addressed in the literature, including without filters referring to a specific period. With the same objective, the term omnichannel was searched without association with any other term, varying only its format, namely "omnichannel". The data survey was conducted in November 2019, which is the final cut.

Figure 1: *Item selection process*



Source: Adapted from (Dyba and Dingsoyr, 2008).

4. Analysis of results:

For this part of the work, the data were analyzed in two stages, one quantitative, which aimed only at the statistical approach of the articles, presenting more superficial data of the sample, such as the number of authors, periods of publication and main journals, and the other qualitative, which enabled to categorize the articles according to the purpose of the study, which allowed for a more in-depth content analysis of the searched articles.

4.1. Quantitative data analysis:

This topic will present the statistical results of the sample studied. According to the temporal evolution, the articles occurred in 2014 with 8 articles. The years 2015 and 2016 present 7 articles each. With an increase in the number of articles, 2017 presents 10 articles. 2018 on the other knew a more increasing number with 20 articles, pointing to the current relevance of omnichannel studies. It is still possible to extract that, although the present work considers only 5 months of 2019, there are already 6 articles dealing with the theme, which indicates that the theme remains at the center of the study.

By analyzing the keyword relationship of the sample articles, the main words related to the theme were identified. Among the studies related to omnichannel retail, which is the main incident word in the articles, the following terms stand out: retail, consumer, channel, experience, consumer, multichannel, marketing, technology, behavioral and cross-channel. As an example, the words mentioned ranged from 7 to 42 occurrences in the articles. Since the study focused on marketing, the word "retailing" which defines the concept, appeared the most after the word omnichannel. Cross-channel and multi-channel issues also appear, as themes that have a direct relationship with omnichannel, which is an expansion of these concepts. Customer, consumer, experience and behavior, are themes related to consumer behavior.

To better understand the origin of the concepts and the main authors who have dedicated themselves to the study of this theme, we have identified the nationality of these researchers. In this theme, Chinese and North Americans stand out, together totaling 46 authors out of a total of 133, or 34.59% of the total number of authors. The American David R. Bell, and the Argentinians Antonio Moreno and Santiago Gallino, are the authors who appear most in this study context, where they appear with three articles each.

To verify the relevance of the articles searched, their number of citations according to the Google Scholar database were recorded. This revealed four articles that together with their citations, accounted for 63.6% of the total citations of the 58 articles in the sample. To realize the relevance of these articles, as of the date of data collection for this work, they are cited 1533 times in other studies. As the sample contains 58 articles and is a large table, it splitting it up according to the criterion presented in Table 1, the articles with at least 25 citations.

Table 1: *Most cited articles according to Google Scholar*

Title of the article	Citations according to Google Scholar
From Multi-Channel Retailing to Omni-channel Retailing Introduction to the Special Issue on Multi-Channel Retailing.	794
Introduction to the Special Issue Information Technology in Retail: Toward Omnichannel Retailing.	338
Categorization of multiple channel retailing in Multi-, Cross-, and Omni-channel Retailing for retailers and retailing.	221
How to Win in an Omnichannel World.	180
Hummel's Digital Transformation Toward Omnichannel Retailing: Key Lessons Learned.	99
Omnichannel Retail Operations with Buy-Off-line-and-Pick-up-in-Store.	91
From Cross-channel to "Omnichannel" Retailing : Review of the Literature and Calls for Research.	68
Omnichannel Customer Behavior : Key Drivers of Technology Acceptance and Use and Their Effects on Purchase Intention.	68
Omnichannel Retailing : The merging of the off-line and off-line environment	67
Off-line and off-line information for omnichannel retailing.	56
Off-line showrooms in omnichannel retail : Demand and operational benefits.	55
Customer experience in the omni-channel world and the challenges and opportunities this presents.	54
Channel Integration Towards Omnichannel Management: A Literature Review.	33
Key Factors in Developing Omnichannel Customer Experience with Finnish Retailers.	30
Tell me what they are like and I will tell you where they buy. An analysis of omnichannel consumer behavior.	28
Product whole life-cycle and omni-channels data convergence-oriented enterprise networks integration in a sensing environment.	27
Cross-channel at Retail and Omni-channel: Challenges for Marketing and Logistics.	25

Source: *Developed by the authors.*

Thus, this table presents the 17 most cited articles, meeting the mentioned criterion. It should be noted that these 17 selected articles total 2234 citations and represent 92.6% of the total citations of the 58 articles in the sample.

In order to have an overview of the reality of the publication venues, i.e., the journals in which authors choose to submit their articles, it is important to note that most publications are made in the United States and the United Kingdom, i.e., 48% of the journals published in these two countries. One of the explanations for this phenomenon may be related to the fact that these

journals use the English language in their publications, which facilitates the dissemination of texts in different locations, since this language is used on all continents of the world. The most relevant journal in terms of publications is the International Journal of Retail and Distribution Management, in which there are 3 articles published. It was also possible to check the way these articles are written in terms of the involvement of the researchers. It was found that 67% of the articles are written by 2 or 3 authors.

As it is known, there are different ways of approaching a theme in an article. In this sense, it was understood as relevant the methodological issue of the articles, that is, to understand how these researchers approach the topic. The articles in the sample were divided according to the type of research (theoretical or empirical) and the approach: quantitative, qualitative or mixed. Of the 58 articles in the sample, 62% (36 articles) are empirical studies and 38% (22 articles) are theoretical. Of the 36 empirical research, 28 present a quantitative approach, 6 a qualitative approach and 2 a mixed approach. The following section presents the systematic review of the sampled articles.

4.2. Qualitative data analysis:

Through their purposes, the articles were classified into six categories. After reading the articles, they were assigned a category based on their purpose. At the end, the categories were listed and through a synthesis, six categories were arrived at which will be presented in Table 2.

Table 2: Categorization of themes

Category by topic	Number of articles	% Of articles
1) Omnichannel consumer behavior (experiences and journeys)	25	43.10
2) Omnichannel retail marketing strategies	16	27.59
3) Literature reviews and future directions for omnichannel	8	13.79
4) Differences between multi-, cross- and omnichannel channels	4	6.9
5) Interdisciplinary relationships between marketing and other management disciplines	4	6.9
6) Security in the omnichannel context	1	1.72
Total	58	100

Source: Developed by the authors.

Thus, the main propositions listed on each of these categories will be presented below, allowing for an understanding of what the authors present as the main definitions and concepts, in addition to a better understanding of how the omnichannel topic has been studied.

4.2.1. Omnichannel consumer behavior (experiences and journeys)

Given that omnichannel retail strategy strongly affects the understanding of consumer behavior, the category with the most articles reveal the studies that explore this topic. The key findings are presented in Table 3.

Table 3: Omnichannel consumer behavior (experiences and journeys)

Author(s)	Type of research	Main findings
(Cho, Ju, & Han, 2012)	Empirical	Consumers' shopping experience in omnichannel retailing has a positive effect on perceived values about products and service.
(Park and Lee, 2017)	Empirical	Age has a significant influence on channel choice behavior, with younger people preferring mobile and internet

		channels. Consumers who use the mobile channel shop without time constraints.
(Kutanoglu and Aydin, 2018)	Empirical	Personalized campaigns affect shopping behavior in the omnichannel context.
(Shen, Li, Sun, & Wang, 2018)	Empirical	The quality of channel integration significantly affects perceived fluidity across channels. This concept of perceived fluidity is related to the information processing capacity of an individual, in this case the consumer. In other words, the greater the supply of channels, the greater the consumer's information processing capacity.
(Haider, Zhuang, AzamHashmi, & Ali, 2019)	Empirical	Consumers with nighttime habits use cell phones more for research and shopping; Consumers with daytime habits use computers more.
(Spychalska, 2017)	Theoretical	Businesses need to analyze consumer preferences; Observe channel functionality and value preferences in the business/consumer relationship.
(Gu and Tayi, 2017)	Empirical	High-demand products generate greater profit when sold exclusively in the offline channel.
(Gao and Yang, 2016)	Empirical	Emphasis on transparency of information allowing consumers to better understand the product.
(Lee, Chan, Chong, & Thadani, 2019)	Empirical	The quality of channel integration positively influences customer engagement, choice of channel services, transparency of channel service configuration; The importance of consistency in channel content and process.
(Komulainen and Makkonen, 2018)	Empirical	Positive and negative factors are related to the formation of customer experiences in omnichannel banking: Advantages: availability of services, ease of use of channels; mobile services and channel complementarity (using mobiles to complement a service in a physical environment). Disadvantages: service malfunctions, technical faults (accessibility issues), service delays, and incompatibility in service delivery between banks.
(Cook, 2014)	Theoretical	Omnichannel customers use technology in their journey, e.g., smartphones; Omnichannel customers require retailers to have more of the technology aspects they do business with; Omnichannel customers become highly loyal and profitable as long as the overall experience is maintained.
(Xu & Jackson, 2019)	Empirical	Transparency and consistency of channels help reduce customer perceived risk.
(Rajan, Swaminathan, & Pavithra, 2017)	Empirical	Consumer purchase intent should be supported by systems that make order status visible to customers.
(Mosquera, Ayensa, Pascual, & Borondo, 2018)	Empirical	Habit, performance expectancy, and hedonic motivation are the strongest predictors of smartphone use in stores; Use of the physical store as a way to engage consumers and enhance their experience; Consumers are ahead of retailers in technology.

(Peltola, Vainio, & Nieminen, 2015)	Empirical	A good omnichannel customer experience lies in the union of: Organizational culture, pricing, operations, and retailer communication; The omnichannel consumer seen as a promising path to lasting relationships.
(Reguraman, 2019)	Empirical	Purchase intention is significantly affected by the offer and quality of the operation, convenience and quality of the product.
(Ayensa, Mosquera, & Murillo, 2016)	Empirical	Consumer purchase intention in an omnichannel store is influenced by retailer innovation, expected effort, and expected channel performance.
(Blom, Lange, & Hess, 2017)	Empirical	Retailers benefit from the use of digital purchase traces. This is the information that customers leave on channels through their consumption history, purchases, and inquiries.
(Kang, 2018)	Empirical	Consumer omnichannel information, price comparison, and social interaction have had a positive effect on showrooming (buying behavior.) This is the purchase in which the consumer consults in a physical store and buys online). Information gathering, social interaction and assortment research had a positive effect on webrooming (purchasing behavior in which the consumer consults on the Internet and buys in a physical store).
(Torrico, Cabezudo, & Martín, 2017)	Empirical	Personal traits, such as impulsivity, influence omnichannel consumer behavior; Impulsive shoppers use mobile devices more ;
(Zhang, Ren, Wang, & He, 2018)	Empirical	Consumer empowerment, in the sense of gaining power in the face of negotiation with the retailer, or even over the brand, shows positive consumer responses toward channel integration.
(Hendriyani and Chan, 2018)	Theoretical	Knowing the customer journey to entice them. This involves understanding the channels the consumer uses to interact with the retailer and in which they make their purchase. The retailer must be fast, creative and innovative.
(Barwitz and Maas, 2018)	Empirical	Customer journeys are inherently heterogeneous; Customers tend to use multiple channels and mediums at each stage of their journey; Customers organize individual journeys, taking advantage of the large amount of interaction options available.
(Kang, 2018)	Empirical	Consumers who use social media, physical stores, and mobile devices have favorable perceptions when consuming through shows rooming and web rooming behaviors. This indicates that they are likely to consume when the retailer's strategy is omnichannel.
(Kull and Hübner, 2016)	Empirical	Smartphones can be: Customer friends, cognitive process drivers, digital supporters, and impulse shoppers (according to studies, smartphones are used as a key channel, impulse shoppers, planned, planned, leading to impulse consumption).

Source: Developed by the authors.

Based on the results discussed in the articles in this section, we notice the degree of concern for understanding the consumer's behavior in their buying journey before omnichannel retailing. It is important to note that customer journeys are heterogeneous, as consumers use different channels and the quality of these channels positively influence their journey. Issues such as personal characteristics and the degree of consumer empowerment in this retail format also emerge as important factors to analyze. Studies show that in India, for example, there is already a company conducting the customer journey, aiming to understand this behavior (Hendriyani and Chan 2018).

The use of mobile devices also appears as a relevant usage tool when the consumer interacts with the company, where the use, for example, of smartphones, indicates how the consumer interacts with companies.

Finally, it is important to understand that research on consumer behavior in omnichannel retailing, is advancing and must continue in this direction, the issues of experiences and consumer journey. To this end, research that seeks to understand the performance of the consumer at each touchpoint during their consumption journey can help companies improve, more and more, these experiences.

4.2.2. Marketing Strategies in Omnichannel Retail

In this category of analysis, we have grouped the articles that have an omnichannel approach from an organizational strategy perspective. The main results are presented in Table 4.

Table 4: *Marketing strategies in omnichannel retailing*

Author(s)	Type of research	Key findings
(Mundim & Petroll, 2018)	Theoretical	Purely physical retailers need to enter the online realm, even if non-operatively, by providing information; purely offline retailers need to enter the online environment by allowing consumers to connect with their customers before purchase.
(Wollenburg, Holzapfel, Hübner, & Kuhn, 2018)	Empirical	Retailers are beginning to use their integrated channels to attract customers across multiple channels, generating higher sales and improving operational costs for customer service.
(Lee and Leonas, 2018)	Theoretical	Virtual technologies have been shown to improve consumer shopping experiences by providing entertainment and convenience.
(Cao and Li, 2018)	Empirical	Retailers with more advanced IT systems tend to adopt and implement a higher level of omnichannel integration. While those selling private label, products have a greater tendency towards omnichannel integration.
(Jaeckel and Yen, 2019)	Empirical	Online and offline channels should be more integrated to enable a truly seamless shopping world; this integration optimizes offline inventory availability checks in stores.
(Parise and Guinan, 2014)	Empirical	In a technology-mediated environment, flow is the degree to which the user successfully navigates through multiple touch points. In a high flow environment, the user experience is more enjoyable.
(Bell, Gallino, & Moreno, 2014)	Empirical	The best way to navigate the omnichannel environment is to have a customer-oriented perspective.

(Hansen and Sia, 2015)	Theoretical	The success of the company's omnichannel strategy, requires the strategic hiring of a new digital platform framework and therefore the creation of a digital department.
(Piotrowicz and Cuthbertson, 2014)	Theoretical	Retailers looking to implement an omnichannel strategy may need to focus on including social and mobile as new channels, customizing and redefining their supply chain network, and understanding different customer requirements.
(Hilken et al, 2018)	Theoretical	Augmented reality offers an array of opportunities to provide customers with a seamless omnichannel journey.
(Bell, Gallino, & Moreno, 2018)	Empirical	Offline intervention is most effective when it occurs early in the customer's journey with the brand.
(Gao & Su, 2016)	Empirical	In omnichannel retailing, not all products that can be picked up in-store are; Specifically, it may not be cost-effective to implement the buy online, pick up in-store (BOPS) strategy on products that sell well in-store; BOPS allows retailers to reach new customers, but for existing customers, the shift from offline to in-store fulfillment can reduce profit margins.
(Sarmah, 2015)	Empirical	Retailers need to perceive physical stores as an asset; Omnichannel retailing becomes a tool to retain existing customers and acquire new ones; Offline retailers need to take advantage of increasing digitalization.
(Gaoet Su, 2016)	Empirical	Showrooms can cause retailers to reduce in-store inventory; Web rooms can increase offline returns and hurt profits if they induce excessive migration of customers from physical stores to virtual channels.
(Luiz et al., 2017)	Theoretical	Innovation in retail is driven by omnichannel strategy, which has a central goal of providing new and seamless experiences for customers by retailers.

Source: Developed by the authors.

Thus, the sample items indicate how companies are looking to act in the marketplace, using the omnichannel strategy. Purely physical retailers must also enter the online field, and retailers in the latter strategy must somehow extend contact with the consumer through physical strategies. This will increase sales and profits. When online channels are the focus of the study, the results show that, on digital platforms, it is possible to provide better experiences to the consumer, in addition to better visualizing and recording the customer journey.

In this retail context, physical stores also play a fundamental role, which could be considered a source of operational costs that turns out to be an important asset in the omnichannel process. The articles reviewed therefore present extremely relevant insights for future research. These should help companies identify the channels that consumers are using. The insights also address research that aims to understand which channels need more attention and which ones can be abandoned, if necessary. From a strategic point of view, retailers need to understand where the consumer is in their journey, in order to implement their actions correctly, thus increasing their effectiveness in integrating with the customer.

4.2.3. Literature Reviews and Future Directions for Omnichannel Retail:

This section will present the main definitions regarding the topic at hand. The articles with the conceptual theme seek, through the existing literature, to present how the theme is treated conceptually. The articles in this section are classified in Table 5.

Table 5: Literature reviews and indications of the future of omnichannel

Author(s)	Type of research	Key findings.
(Mirsch, Lehrer, & Jung, 2016)	Theoretical	The omnichannel approach is an appropriate measure to meet contemporary needs; Consumers are highly informed and demand the best price and quality of experience ;
(Morais, Sarquis, Cittadin, & Hawerth, 2015)	Theoretical	The main research areas in the omnichannel environment are: Consumer behavior, technology, logistics, channel integration, and shopping experience; Value creation/competitive advantage.
(Verhoef, Kannan, & Inman, 2015)	Theoretical	Businesses and customers use mobile devices in stores; In an omnichannel environment, it is important to provide a seamless experience across touch points.
(Lazaris & Vrechopoulos, 2014)	Theoretical	Technology-based omnichannel retail strategy strongly affects consumers and businesses; Technology affects the stages of the consumer's purchase decision process.
(Chen, Cheung, & Tan, 2018)	Theoretical	Omnichannel retailing accentuates the interaction between channels and consumers; It provides a seamless shopping experience; Supply chain management is a critical component of omnichannel business.
(Frazer & Stiehler, 2014)	Theoretical	The goal of omnichannel retailing is to create a seamless experience; retailers should be able to improve the shopping experience by approaching their omnichannel strategies from an experiential marketing perspective.
(Briel, 2018)	Empirical	Future competition in the retail industry will be based on the holistic consumer experience; Consumers will increasingly determine when and how they want to interact with retailers; Retailers will need to reinvent stores using digital technologies...;
(Beck and Rygl, 2015) (Guissoni, 2017)	Theoretical	Consumers want a consistent experience across multiple touch points in their interactions with businesses.

Source: Developed by the authors.

According to the results found in this section, it is possible to note that the issue of technology related to the omnichannel retail aspect is one of the most discussed topics. Channel integration has an impact on technology investments. Aspects related to the consumer shopping experience and consumer behavior in this retail format are very present in the studies on the subject. It should be noted that due to the complexity of the topic, operating in omnichannel retail is not simple, because in addition to understanding how best to interact with consumers in this strategy, organizations must also invest resources to deliver the experience demanded by the consumer. Therefore, research on the topic must focus on the need to understand the best way to integrate the company's channels and which channels are really necessary and more effective. Understanding the actual needs and demands of omnichannel consumers should also be a focus of future research.

4.2.4. Differences between multichannel, cross-channel and omnichannel retailing:

Another very important approach in the context of this research work, is the concern to properly define retail strategies appear in the sample articles. The authors' present definitions and characteristics that distinguish between multi-, cross- and omnichannel approaches. Table 6 presents the results.

Table 6: *Differences between multi, cross and omnichannel*

Author(s)	Type of research	Key findings
(Beck and Rygl, 2015)	Theoretical	The term "multichannel" indicates that channels coexist without the customer being able to trigger the interaction, nor the retailer being able to control the integration; the customer, in a cross-channel strategy, can trigger partial interactions and/or the retailer can control partial integration; in omnichannel retailing, the customer can trigger a full interaction and/or the retailer control the integration of all channels.
(Berman and Thelen, 2018)	Theoretical	In a multichannel context, the focus is on channel-specific maximization, where the strategy is based on differentiation; the retailer using the omnichannel strategy, focuses on maximizing total performance and customers receive a consistent message from these retailers.
(Bhalla, 2014)	Theoretical	Organizations need to take a holistic view of all customer touch points across all channels so that customers, regardless of channel, can always experience their key moments of truth.
(Yrjola, Saarijarvi, & Nummela, 2018)	Theoretical	Retailers must evaluate their multichannel strategies against their consumer value propositions and work to align them accordingly. Interestingly, the role of the customer changes across different multichannel strategies. Specifically, when comparing multichannel strategies to cross-channel or omnichannel strategies, the role of the customer appears to be shifting from being a passive recipient to a more active participant in the buying process.

Source: Developed by the authors.

This category discusses definitions and presents findings that are extremely important to the study of omnichannel retailing. Understanding this context involves, first, correctly identifying the strategy. In short, the main differentiation between these approaches is conditioned by the degree of interaction between channels, which directly impacts the consumer and the retailer. In the multi-channel strategy, there is no interaction/integration and the strategies can be distinct from the different channels. In cross-channel, these elements are partial, meaning that at some point in the journey there may be an interaction between channels, such as placing an order online and picking it up in a physical store. In the omnichannel occur fully, providing the same experience regardless of the channel. Under these conditions, the suggestions for future research that emerge from these results are directed towards studies on the understanding consumer behavior in each of these retail strategies, since they are used by different companies.

4.2.5. Interdisciplinary relationship of marketing with other management disciplines:

When the organization decides to change its market action strategy, its entire structure is affected. Thus, to understand omnichannel retail strategy, it is also important to present its relationship with other organizational areas. Table 7 shows the articles in the sample that address this issue.

Table 7: *Interdisciplinary relationships of marketing with other management disciplines.*

Author(s)	Type of Research	Key Findings
(Heuchert, Barann, Cordes, & Becker, 2018)	Theoretical	A modeling language will be created that covers a marketing and technical perspective that supports inter-organizational communication; Taking a closer look at the socio-technical characteristics, it is necessary to analyze the business requirements needed to implement the proposed services within the strategy, organizational structure, culture, and processes.
(Carvalho and Campomar, 2014)	Theoretical	Marketing actions need an organization of processes, implementations in its management, controls in its execution, improvements in the results and better strengthening of available resources.
(Li, Luo, Xie, Feng, & Du, 2015)	Empirical	Cloud computing, Big Data, sensing technologies and new business models are the guiding processes. As a result, information collaboration between companies is more complex and diverse.
(Hansen and Sia, 2015)	Theoretical	Data and processes in the collaborative enterprise tend to be fragmented. The data storage and process models of a business operation are dispersed across multiple networked enterprises; There is a need for seamless management of the entire product lifecycle following the product, customer needs, markets and omnichannel marketing strategy.

Source: Developed by the authors.

This category presents the authors' understanding when the topic of omnichannel retail is related to other organizational areas. The results for this category show that the authors are concerned about the integration of marketing, especially with information technology and logistics. The issue of logistics management in this omnichannel environment is one of the major challenges for the organization, as this strategy has a direct impact on inventory management and how products are made available to consumers. For the organizational process to work, it is also necessary to invest heavily in information technology. For the channels to act in an integrated manner, the systems must have a connection that allows the customer and product database information to have the same characteristics across the channels. These changes needed to operate in omnichannel retail affect the organization, its structure, its processes, and may even impact the cultural issues of the business. In future research, studies on these impacts become important to understand the organizational changes needed to operate in the omnichannel strategy.

4.2.6. Security in the omnichannel retail environment:

Finally, but also an important topic, omnichannel retailing, although having a high degree of technology, requires some attention, once it operates on information collected, mainly, in digital platforms. Table 8 shows the articles in the sample that deal with this topic.

Table 8. Security in the omnichannel context

Author(s)	Type of Research	Key Findings
(Wetzlinger, Auinger, Kindermann, & Schonberger, 2017)	Empirical	Findings show that personalized services pose significant privacy concerns; Consumers expressed greater concerns about digital services in the retail store.

Source: Developed by the authors.

From the results found, it is understood that there is a need to be aware of the importance that consumers place on their data. The proposed interaction and integration in omnichannel retailing requires attention to the secrecy and privacy of user data. The trust that users place in organizations can bring benefits to the business in terms of results. Because the study was geared toward the marketing domain, only one article was listed in the sample, but it is important that future research work on understanding the impact of trust and perceived risk in the omnichannel context. Studies on the degree of trust related to whether or not sales results increase in the omnichannel environment may provide relevant results when studying this retail format.

5. Research Limitations and Perspectives:

After the analysis of quantitative and qualitative data, this study proposes a table that offers research limitations and perspectives for each category, aiming to contribute to future research related to the theme, presented in table 9.

Table 9: Limitations and perspectives of the research

Category	Research limitations and perspectives
1) Consumer Behavior and Omnichannel Retail (Experiences and Journeys)	Research to understand how consumer empowerment in omnichannel retail and its impact on its relationship with the retailer. Are consumers using this to their advantage when negotiating their purchases? When consumer impulsivity is more evident in their journey, they already have this characteristic before the purchase decision, which can be used by the company in their favor, or does this factor only work at the time of purchase?
2) Marketing strategies and omnichannel retailing	Research to reveal how companies use data from the interaction between them and the consumer in their strategies. Is the data generated by this interaction being used to generate competitive differentiation? If so, how are companies doing it? Do the features offered on digital channels to attract the consumer to the physical store have an impact on the company's new sales? Which features are most used by consumers and in which channels are they used?
3) Literature Reviews and Future Directions for Omnichannel Retail	With consumer experience being extremely relevant to the study of omnichannel retail, it is important to understand what factors are having the most impact on this consumer demand.

	If the consumer now demands experiences, what can companies do to deliver the best experience? Identifying the key factors that make this possible must be central to the study of this retail strategy.
4) Differences between Multi, Cross, and Omnichannel	The study identified that the key differentiator in retail strategy is interactivity between channels. Future research should explore other characteristics in order to form a central theory for these concepts, since, despite being a great approach, it does not present a central author that their concepts are used as a basis for this theory. Further research on the subject can identify these other characteristics and thus differentiate in other ways these concepts.
5) Interdisciplinary Marketing and Relationship to Other Management Disciplines	How is the integration of the company to operate in this retail format? Are companies prepared for the concept of omnichannel? Research to identify the technologies needed to operate in this retail format can reveal important information with managerial contributions to the market. For example, how are companies exploring the data generated by Big Data?
6) Security in the omnichannel context	Research has focused on consumers to see if companies are conveying information about the security of their data in the interaction with the company. Research can verify if the retailer has a security infrastructure in place, in order to build trust with the consumer, resulting in a more lasting relationship.

Source: Developed by the authors.

6. Conclusion:

This research aimed to address, through a bibliometric study, supplemented by a systematic review, the topic of omnichannel retailing from a marketing perspective. It is important to understand that the study is limited to the fact that it explored the theme only in the context of articles related to the field of marketing since omnichannel strategy also influences other organizational domains more specifically. Despite the importance of the other domains to the operation of this strategy, the study did not delve into the performance of each of these other domains. It is also limited by the number of databases used in the sample article survey, as the selected sample does not exhaust the total field of publications.

Regarding the main findings, the researchers' concern to understand the consumer's behavior in this retail practice, seeking to decipher, throughout the customer's journey, his behavior at the different available touch points, appears as the most relevant point. At this point, the study makes a theoretical contribution by pointing out the gaps in consumer behavior research, such as understanding how personal empowerment and impulsivity factors act in the consumer's interaction with the company. Determining which are the main channels that the omnichannel consumer uses throughout their journey should also be a source of research, as this will guide companies with the main technologies used by consumers. In this sense, in the future, it will be possible to develop a map of the omnichannel consumer journey, which will serve as a basis for studies.

From a managerial point of view, the study contributes to companies in the sense that it demonstrates the main strategies used by companies in the context of omnichannel retailing. Companies that are not yet operating in this format can use this study to better understand organizational actions when the intention is to improve interaction with consumers. In this sense, the study presents issues related to the performance of companies in the channels and

what to present to the consumer to attract them. Understanding how transparency, message cohesion, and consistency of channel content interfere with consumer behavior are examples of important factors that must be considered in the relationship with the consumer. The study also indicates how companies are using the physical store to interact with consumers through strategies such as: buy online and pick up in-store, or even, buy online and send to the most convenient store to pick up (relay points). These examples show how companies can fit into the omnichannel environment.

Thus, the importance of the correct implementation of organizational strategies is obvious. It is essential for the performance of companies in this environment, investments in information technology, special attention to logistics and supply chain aspects, as well as the concern to secure this context of interaction and integration. These interdisciplinary aspects are factors that also appear in the study and indicate where companies should focus their actions. Knowing how to distinguish omnichannel strategy from others, such as multichannel and cross-channel, is also essential, as the strategy must be clear to the market. This topic was also analyzed and concluded that companies need to make it clear how they operate in the market. Failure to do so can lead to market positioning problems, consumer confusion, and consequently problems for companies.

In general, the study proposes that future research in the marketing field should address issues that help to understand consumer behavior during the buying journey, including studies on the factors that impact the consumer during that journey, as understanding how they interact with the company at each touchpoint is essential. This can reveal critical information for business success in this retail format. These revelations will contribute to the implementation of the best and most effective organizational strategies to operate in this complex and challenging environment.

References:

- (1) Beck, N., & Rygl, D. (2015). Categorization of multiple channel retailing in Multi-, Cross-, and Omni-Channel Retailing for retailers and retailing. *Journal of retailing and consumer services*, 27, 170-178.
- (2) Bell, D. R., Gallino, S., & Moreno, A. (2014). How to win in an omnichannel world. *MIT Sloan Management Review*, 56(1), 45.
- (3) Bell, D. R., Gallino, S., & Moreno, A. (2018). Off-line Experiences and Value Creation in Omnichannel Retail. *SSRN Electronic Journal*, p. 1-13. <https://doi.org/10.2139/ssrn.3260742>
- (4) Berman, B., & Thelen, S. (2018). Planning and implementing an effective omnichannel marketing program. *International Journal of Retail & Distribution Management*, 46(7), 598-614.
- (5) Bhalla, R. (2014). The omni-channel customer experience: Driving engagement. *Journal of Digital & Social Media Marketing*, 1(4), p. 365-372.
- (6) Cao, L., & Li, L. (2018). Determinants of Retailers' Cross-channel Integration: An Innovation Diffusion Perspective on Omni-channel Retailing. *Journal of Interactive Marketing*, 44, 1-16.
- (7) Carvalho, J. L. G. de, & Campomar, M. C. (2014). Multichannel at retail and omni-channel: Challenges for Marketing and Logistics. *Business and Management Review*, 100(8643), 1703-1755. doi=10.1.1.663.4708&rep=rep1&type=pdf
- (8) Chen, Y., Cheung, C. M. K., & Tan, C. W. (2018). Omnichannel business research: Opportunities and challenges. *Decision Support Systems*, 109, 1-4. <https://doi.org/10.1016/j.dss.2018.03.007>

- (9) Cook, G. (2014). Customer experience in the omni-channel world and the challenges and opportunities this presents. *Journal of Direct, Data and Digital Marketing Practice*, 15(4), 262–266. <https://link.springer.com/article/10.1057/dddmp.2014.16>
- (10) Creswell, J. W., & Clark, V. L. P. (2013). *Pesquisa de Métodos Mistos*. Porto Alegre: Penso.
- (11) Cunha, S. E. da. (1978). *Estatística descritiva: na psicologia e educação*. São Paulo: Forense.
- (12) De Carvalho, J. L. G., & Campomar, M. C. (2014). Multichannel at retail and omni-channel: Challenges for Marketing and Logistics. *Business and Management Review*, 4(3), 103-113.
- (13) Dyba, T., & Dingsoyr, T. (2008). Strength of Evidence in Systematic Reviews in Software Engineering. ESEM'08: Proceedings of the 2008 ACM-IEEE International Symposium on Empirical Software Engineering and Measurement, (7465), 178–187. <https://doi.org/10.1145/1414004.1414034>
- (14) Frazer, M., & Stiehler, B. E. (2014). Omnichannel retailing: The merging of the on-line and off-line environment. *Global Conference on Business & Finance Proceedings*, 9(1), 655. Institute for Business & Finance Research.
- (15) Galipoglu, E., Kotzab, H., Teller, C., Yumurtaci Huseyinoglu, I. O., & Poppelbub, J. (2018). Omni-channel retailing research—state of the art and intellectual foundation. *International Journal of Physical Distribution & Logistics Management*, 48(4), 365-390.
- (16) Gao, F., & Su, X. (2016a). Omnichannel Retail Operations with Buy-On-line-and-Pick-up-in-Store. *Management Science*, (June), 0–15.
- (17) Gao, F., & Su, X. (2016b). On-line and Off-line Information for Omnichannel Retailing. *Ssrn*, (November). <https://doi.org/10.2139/ssrn.2796566>
- (18) Hansen, R., & Sia, S. K. (2015). Hummel's Digital Transformation Toward Omnichannel Retailing: Key Lessons Learned. *MIS Quarterly Executive*, 14(2).
- (19) Hendriyani, C., & Chan, P. A. (2018). Understanding the New Millennial Customer Path in the Era of Omni- Channel Marketing in Indonesia. *Review of Integrative Business and Economics Research*, 7, 359.
- (20) Heuchert, M., Barann, B., Cordes, A.-K., & Becker, J. (2018). An IS perspective on omni-channel management along the customer journey: Development of an entity-relationship-model and a linkage concept. *MKWI 2018 - Multikonferenz Wirtschaftsinformatik, 2018-March*, 435–446.
- (21) Hilken, T., Heller, J., Chylinski, M., Keeling, D. I., Mahr, D., & de Ruyter, K. (2018). Making omnichannel an augmented reality: the current and future state of the art. *Journal of Research in Interactive Marketing*, 12(4), 509–523. <https://doi.org/10.1108/JRIM-01-2018-0023>
- (22) Jaeckel, B., Yen Y. (2019). How a Thought-out Omni-Channel Strategy can help the German Coffee Retailer to Stay Ahead of its Competition: A case of Tchibo. *International Journal of Business Management and Economic Research*, 10(1), 2019, p. 1526-1533.
- (23) KNIDIRI, Z., & MOUSSA, M. B. (2019). Showrooming & Webrooming : Revue de littérature par une étude bibliométrique. *International Journal of Management Sciences*, 2(3).
- (24) Lazaris, C., & Vrechopoulos, A. (2014). From Multichannel to "Omnichannel" Retailing: Review of the Literature and Calls for Research. (June). <https://doi.org/10.13140/2.1.1802.496>.
- (25) Lee, H., & Leonas, K. K. (2018). Consumer Experiences, the Key to Surviving in an Omni-channel Environment: Use of Virtual Technology. *Journal of Textile & Apparel Technology & Management*, 10(3), 1–23.

- <https://ojs.cnr.ncsu.edu/index.php/JTATM/article/view/13353>
- (26) Li, Q., Luo, H., Xie, P. X., Feng, X. Q., & Du, R. Y. (2015). Product whole life-cycle and omni-channels data convergence oriented enterprise networks integration in a sensing environment. *Computers in Industry*, 70, 23–45. <https://doi.org/10.1016/j.compind.2015.01.011>
 - (27) Mirsch, T., Lehrer, C., & Jung, R. (2016). Channel integration towards omnichannel management: a literature review. Pacific Asia Conference on Information Systems Proceedings 2016. <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1289&context=pacis2016>
 - (28) Morais, A. S. A. de, Sarquis, A. B., Cittadin, J., & Hawerth, M. (2015). Evidenciação da produção científica sobre o tema omnichannel: análise bibliométrica até 2015. *CLAV 2016 9th Latin American Retail Conference*.
 - (29) Mundim, M. A. B., & Petrol, M. D. L. M. (2018). Busca de Informações e Apresentação dos Produtos no Ambiente de Varejo Omnichannel: Estratégias para Varejistas Puramente On-line, Puramente Físicos e Multicanal. *Revista Administração Em Diálogo - RAD*, 20(2), 123. <https://doi.org/10.23925/2178-0080.2017v20i2.35769>
 - (30) Mundim, M. A. B., & Petroll, M. D. L. M. (2018). Busca de Informações e Apresentação dos Produtos no Ambiente de Varejo Omnichannel: Estratégias para Varejistas Puramente On-line, Puramente Físicos e Multicanal. *Revista Administração Em Diálogo-RAD*, 20(2), 123-147.
 - (31) Neslin, S. A., Grewal, D., Leghorn, R., Shankar, V., Teerling, M. L., Thomas, J. S., & Verhoef, P. C. (2006). Challenges and opportunities in multichannel customer management. *Journal of Service Research*, 9(2), 95–112. <https://doi.org/10.1177/1094670506293559>
 - (32) Neslin, S. A., Grewal, D., Leghorn, R., Shankar, V., Teerling, M. L., Thomas, J. S., & Verhoef, P. C. (2006). Challenges and opportunities in multichannel customer management. *Journal of service research*, 9(2), 95-112.
 - (33) Otto, J. R., & Chung, Q. B. (2000). A framework for cyber-enhanced retailing: Integrating e-commerce retailing with brick-and-mortar retailing. *Electronic Markets*, 10(3), 185-191.
 - (34) Otto, Q. B., & Chung, J. R. (2000). A Framework for Cyber-Enhanced Retailing: Integrating E-Commerce Retailing with Brick-and-Mortar Retailing. *Electronic Markets*, 10(3), 185–191. <https://doi.org/10.1080/10196780050177099>
 - (35) Parise, S., & Guinan, P. J. (2014). How Can Small Businesses Omni-Channel Customer Experience ? (*Interactive Paper*). 34(11).
 - (36) Piotrowicz, W., & Cuthbertson, R. (2014). Introduction to the special issue information technology in retail: Toward omnichannel retailing. *International Journal of Electronic Commerce*, 18(4), 5-16.
 - (37) Sampaio, R. F., & Mancini, M. C. (2007). Estudos de Revisão Sistemática: um guia para síntese criteriosa da evidência científica. *Rev. Bras. Fisioter.*, São Carlos, v. 11, n. 1, p. 83-89.
 - (38) Sarmah, T. (2015). Omni - Channel Retailing : the Opulent Blend. *Journal of Arts, Science & Commerce*, VI(3), 1–10.
 - (39) Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students (5th ed.). Harlow (Essex): Pearson.
 - (40) Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omnichannel retailing: introduction to the special issue on multi-channel retailing. *Journal of retailing*, 91(2), 174-181.
 - (41) Von Briel, F. (2018). The future of omnichannel retail: A four-stage Delphi study. *Technological Forecasting and Social Change*, 132, 217–229.

- (42) Wetzlinger, W., Auinger, A., Kindermann, H., & Sch, W. (2017). HCI in Business, Government and Organizations. *Supporting Business*. 10294, 114–129. <https://doi.org/10.1007/978-3-319-58484-3>
- (43) Wollenburg, J., Holzapfel, A., Hübner, A., & Kuhn, H. (2018). Configuring retail fulfillment processes for omnichannel customer steering. *International Journal of Electronic Commerce*, 22(4), 540–575.
- (44) Yrjölä, M., Saarijärvi, H., & Nummela, H. (2018). The value propositions of multi-, cross-, and omnichannel retailing. *International Journal of Retail and Distribution Management*, 46(11–12), 1133–1152.
- (45) Zhang, J., Farris, P. W., Irvin, J. W., Kushwaha, T., Steenburgh, T. J., & Weitz, B. A. (2010). Crafting integrated multichannel retailing strategies. *Journal of Interactive Marketing*, 24(2), 168–180. <https://doi.org/10.1016/j.intmar.2010.02.002>
- (46) Zhang, M., Ren, C., Wang, G. A., & He, Z. (2018). The impact of channel integration on consumer responses in omnichannel retailing: The mediating effect of consumer empowerment. *Electronic Commerce Research and Applications*, 28, 181–193.